

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 18 have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukumoto et al. (US 2002/0054146 A1, of record) [Fukumoto] in view of Wugoski (6,690,392, of record), Bertram (6,011,546, of record), and Yamamoto et al. (6,166,778) [Yamamoto].

Regarding claim 18, Fukumoto discloses a function assignment method of an operation device, comprising sequentially the steps of:

displaying a prescribed hierarchical level menu comprising a plurality of prescribed items (fig. 5);

selecting by a user one of the prescribed items (a user first selects "Various Setting" paragraph 52);

displaying, on the same screen as the prescribed hierarchical level menu, a lower hierarchical level menu according to the selected prescribed item, the lower hierarchical level menu comprising a plurality of lower items (figs. 7A-C);

selecting by the user one of the lower items (a user next selects "Custom Setting" paragraph 52);

assigning a function according to a set of the selected items in each hierarchical level menu (user's specify menu functions to be more readily accessible from the main menu, paragraphs 52 and 68).

Fukumoto fails to disclose the lower hierarchical level menu is displayed on the same screen with the prescribed hierarchical level menu, and displaying a registration menu on the same screen with the prescribed and lower hierarchical level menu which comprises registration items relating to function keys according to selection of one of the items in the lowest hierarchical level menu, selecting by the user one of the registration items and assigning the function to a function key relating to the selected registration item with one-to-one correspondence, wherein while selecting the lower items, and when the user presses a determination key of the operation device for a time period equal or longer than a predetermined time period, the registration menu is displayed to enable the user to perform the registration operation, and when the user presses the determination key for a time period shorter than the predetermined time period, the menu display process is terminated without displaying the registration menu..

In an analogous art, Wugoski teaches, after a user has input a desired series of inputs to define a function, the user is presented with registration menu comprising items that relate to function keys, where selecting by the user one of these items assigns the function to a function key relating to a selected item from the registration menu with one-to-one correspondence (col. 8, lines 29-50), providing the benefit of directly accessing a desired function independent of an on screen menu (col. 1, lines 48 – col. 2 line 18).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by Fukumoto to include displaying a registration menu comprising registration items relating to function keys, selecting by the user one of the registration items and assigning the function to a function key relating to the selected registration item with one-to-one correspondence, as taught by Wugoski, for the benefit of directly accessing a desired function independent of an on screen menu. This registration menu is displayed on the same screen as the lower hierarchical menu, as it corresponds to the custom setting region 25 shown in fig. 7B of Fukumoto, which occupies the same screen as the identified lower hierarchical menu 24.

Fukumoto and Wugoski fail to disclose the second hierarchical level menu is displayed on the same screen with the first hierarchical level menu and wherein while selecting the lower items, and when the user presses a determination key of the operation device for a time period equal or longer than a predetermined time period, the registration menu is displayed to enable the user

to perform the registration operation, and when the user presses the determination key for a time period shorter than the predetermined time period, the menu display process is terminated without displaying the registration menu..

In an analogous art, Bertram teaches displaying hierarchical level menus in a cascaded fashions such that first and second hierarchical level menus are displayed on the same screen (fig. 12, col. 38, lines 21-50).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method of Fukumoto and Wugoski to display the second hierarchical level menu on the same screen with the first hierarchical level menu, for the benefit of providing to the user the contents of the first menu in addition to the contents of the second menu, such that the user will not forget what options are available from the first menu when browsing the second menu.

Fukumoto, Wugoski, and Bertram fail to disclose while selecting the lower items, and when the user presses a determination key of the operation device for a time period equal or longer than a predetermined time period, the registration menu is displayed to enable the user to perform the registration operation, and when the user presses the determination key for a time period shorter than the predetermined time period, the menu display process is terminated without displaying the registration menu.

In an analogous art, Yamamoto teaches assigning two functions to a single key on a remote control, wherein an extended duration press of the key is

used to call up a registration menu for aiding a user in programming desired settings (col. 15 line 27 - col. 16 line 21).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method of Fukumoto, Wugoski, and Bertram to include two functions to a single key on a remote control, wherein an extended duration press of the key is used to call up a registration menu for aiding a user in programming desired settings, as taught by Yamamoto. This is a common practice in the art, as the number of keys on a remote control is limited, and thus less often accessed functions are assigned to buttons ordinarily used for more common functions where an extended duration press activates the second function. As such, making the modification to Fukumoto, Wugoski, and Bertram such that when the user presses a determination key of the operation device for a time period equal or longer than a predetermined time period, the registration menu is displayed to enable the user to perform the registration operation, and when the user presses the determination key for a time period shorter than the predetermined time period, the menu display process is terminated without displaying the registration menu is an obvious modification in view of the prior art, as evidenced by references such as Yamamoto.

Regarding claims 19 and 20, Fukumoto, Wugoski, Bertram, and Yamamoto disclose the method of claim 18, wherein the operation device is a remote controller for a television receiver (Wugoski, fig. 4) and the prescribed

hierarchical level menu comprises image quality adjustment ['Image Quality'] and sound adjustment ['Sound Quality'] and the second hierarchical level menu comprises contrast ['Sharpness'] and luminance ['Brightness'] for image quality adjustment and sound volume ['Speaker'] for the sound adjustment (Fukumoto, figs. 5 and 7A-C).

Regarding claim 21, Fukumoto, Wugoski, Bertram, and Yamamoto disclose the method of claim 18, wherein the prescribed and lower hierarchical level menus and the registration menu are adjacently displayed stepwise according to the selection by the user, on the same screen (Bertram, fig. 12).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOMINIC D. SALTARELLI whose telephone number is (571)272-7302. The examiner can normally be reached on Monday - Friday 9:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dominic D Saltarelli/
Examiner, Art Unit 2421